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DISCOVERIES AND CURRENT EVENTS *

French North Africa: The Desert Locust (*Schistocerca gregaria*) (1).

ALGERIA.

On 5 January 1934, a medium sized red swarm coming from the N. passed Oued Nétissa (15 km W. of Ghardaïa) flying W.

On the 6th, a dark red swarm coming from the S. passed over the basin of Fort Lallemand (150 km E. of Ouargla), 20 km in length, flying N.

On the 13th, a large dark red swarm coming from the N. settled at 5 p. m. at Laâdjadja (30 km S. of Ghardaïa). Departed on the 14th at 1 p. m. flying S.

On the 15th, a large red swarm coming from the W. passed Moghrar (Aïn-Sefra) flying N.

On the 20th, a very large red swarm coming from the S. E. settled near Duveyrier, Oued Dermel and Tachetoufet (Aïn-Sefra) and flew towards the N.

A swarm coming from the S. settled at Bir Bagain (17 km S. S. E. of El Oued) and flew away W.

On the 24th a pink swarm coming from the E. settled in the region of El Mestour and El-Medjena (200 km N. W. of El-Goléa).

A large swarm coming from the S. E. settled on Amguid (Tamanrasset). It flew away on the 26th towards the N. W.

Large red swarms coming from the S. passed Hassi Sahan (50 km N. E. of Ouargla) on the 25th and 28th flying N.

On the 27th a pink swarm coming from the E. settled in the region of Dekikir (48 km N. of El-Goléa).

A large red swarm settled in the region of El-Moungar (Colomb-Béchar) and flew away towards the W.

On the 28th, a very large red swarm settled 105 km along the motor road from Ghardaïa to El-Goléa (Ghardaïa).

MOROCCO.

On 2 January 1934, a pink swarm, 2 × 0.5 km, coming from the N. W. settled at the Aït el Adj (20 km to the S. E. of Taroudant).

* Under this and the next heading the countries are arranged in French alphabetical order.

(1) Communication from the Government General of Algeria (Direction des Services Economiques) to the International Institute of Agriculture.

On the 3rd, a pink swarm, 15 × 1 km, coming from the N. W. settled at the Ida ou Zal (70 km E. of Taroudant).

On the 5th, a pink swarm passed from the 5th to the 7th along the Oued Souss, from the Mentaga to the Aoulouz (above Taroudant).

On the 7th, a pink swarm, 5 × 4 km, settled at Tasdrent (40 km E. S. E. of the Cap Ghir).

A pink swarm reported on the 31 December 1933 in the Aït Tameur settled at the Aït Aïssi to the S. E. of Tamanar (civil control of the Haha Chiadma) and departed towards the Oued Ridi, where it remained settled till the 9th.

On the 8th, a pink swarm settled in the Imgad to the N. of Tamanar (region of the Hâha Chiadma).

On the 10th, a pink swarm coming from the S. settled at Arbalou (civil control of the Haha Chiadma). Flew W. on the 11th.

On the 11th, a pink swarm reported on the 9th at the Oued Ridi settled at Imgrad to the N. of Tamanar (civil control of the Haha Chiadma) until the 13th.

On the 16th a pink swarm coming from the S. settled at Taourirt (Annex of Imi n'Tanout) and flew S. E. to settle on the coast at 1,210. Departed on the 17th flying N.

On the 17th a pink swarm, 4 × 5 km, coming from the S. passed Aït Ouazoum (territory of Agadir) flying N. E. and settled at Touchka over several thousand hectares.

On the 18th two small pink swarms settled in the Annex of the Aït Ourir.

A pink swarm, 2 × 1 km, settled at Ida ou Zem Zem (civil control of the Haha Chiadma) ; on the 19th flew away W. S. W.

A pink swarm, 5 × 2 km, coming from the E. settled at Tribu Fouzzara (circle of Taroudant).

On the 21st, a pink swarm reported on the 18th at the Ida ou Zem Zem settled at Adrar (civil control of the Haha Chiadma).

A pink swarm, 5 × 1.5 km, coming from the E. settled in the outskirts of Taroudant.

A pink swarm, 4 × 1 km, coming from the S. W. settled at Menabha (circle of Taroudant).

On the 22nd, a pink swarm coming from the Ida ou Zem Zem settled at Takoucht (civil control of the Haha Chiadma).

On the 24th, a pink swarm, 1 × 1 km, coming from the Ida ou Zem Zem settled on the 24th and 25th at Ailala (civil control of the Haha Chiadma) and flew away N. N. W.

On the 26th, a red swarm, 1 × 1 km, of low density settled in the Annex of the Aït Ourir. Departed on the 29th flying N. E.

On the 29th, a pink swarm, 2 × 3 km, coming from the Ida ou Zem Zem settled at Semrhoura (civil control of the Haha Chiadma). Departed on the 30th flying W.

On the 31st, a pink swarm, 10 × 6 km, settled at the Ida ou Kazou (civil control of the Haha Chiadma). Departed on 1 February flying N.

England: The Colorado Beetle (*Leptinotarsa decemlineata*) (1).

Four specimens of the Colorado Beetle have been discovered during the past few weeks on the Gravesend bank of the river Thames, opposite to Tilbury, Essex.

Although the site where these specimens were found is in the county of Kent, the discovery does not represent a new outbreak; it should be regarded as part of the outbreak at Tilbury [see this *Bulletin*, 1933, No. 10, p. 226].

England and Wales: New and Interesting Phytopathological Records for the Year 1933 (1).

(a) Plant parasitic fungi encountered in England and Wales during 1933 and believed not to have been found there previously:

Uromyces festucae Syd.; on *Festuca rubra.*

Puccinia antirrhini Diet. & Holw.; widespread in the south and south-east on the cultivated Antirrhinum.

(b) The parasites mentioned below are not new to the country, but the occurrence of them on the hosts mentioned does not appear to have been noted previously in England and Wales:

Phytophthora cryptogea Pethybr. & Laff.; causing a Foot Rot of Zinnia.

Pleospora herbarum Rabenh.; causing a Leaf Spot of endive.

Ustilago violacea (Pers.) Fuck.; in the anthers of carnation flowers.

Puccinia pruni-spinosae Pers.; on the leaves of apricot and peach.

Helicobasidium purpureum (Tul.) Pat.; on chicory.

Septoria gladioli Pass.; on imported Crocus corms.

Thielaviopsis basicola (Berk.) Ferraris; on corms of Gloxinia.

Marssonina panattoniana Berl.; on endive.

Sclerotium tuliparum Kleb.; attacking Narcissus bulbs.

Angola: Locust Movements (2).

On 3 August 1933 a red swarm passed over the civil post of Lupiri (civil circumscription of Menongue, flying W.

On the 5th a swarm of 1.2 × 10 km, coming from the N. flew over the town of Malange and settled in its vicinity. It departed the following day flying S.

A large swarm caused serious damage to crops in the zone between Quizenza and Matete.

(1) Communication from the Ministry of Agriculture and Fisheries, London, official correspondent of the Institute.

(2) Communication from Mr. Jorge de Barros Rodrigues Queiroz, Director of the Laboratory of Plant Pathology and Agricultural Entomology, Luanda, transmitted to the Institute by the Government General of the Colony.

On the 6th a swarm coming from the N. was reported at Bailundo. The swarm covered an area of 2 square km and was flying S.

On the 7th swarms of ever increasing size were reported in the circumscription of Ganda, which destroyed the native and European crops.

On the 9th a large swarm settled at Santa Maria, civil circumscription of Duque de Bragança. Another swarm settled in the same circumscription on the 10th and destroyed some native crops.

On the 12th a very large and dense swarm passed over the town of Vila Nova and flew towards the circumscription of Lepi.

On the 15th a swarm coming from the S. W. passed over the region of Lombindi, circumscription of Huambo, flying N. W.

Two swarms of 5 km × 300 metres were reported to the S. of Vila de Saurimo, district of Luanda, flying from S. to N.

On the 16th a very large swarm covering the whole horizon settled at Vila da Ganda and destroyed the wheat and maize crops.

On the 17th a swarm extending over 3 km passed over Quilengues.

On the 21st a very dense swarm coming, according to information received, from Bailundo, passed over the town of Nova Lisboa and flew in the direction of Cuima (South).

On the 22nd a large swarm circled over Lepi by reason of the violence of the wind and then flew S.

A large swarm passed over the civil post of Catabola.

On the 28th a large swarm passed the region of Brito Godins civil, circumscription of Duque de Bragança, causing considerable damage.

Other locust movements of unknown date.

Large swarms continued to infest the districts of Bié and Quanza Sul, causing heavy losses to the farmers. The circumscription of Duque de Bragança, and specially Brito Godins, was also invaded.

Official communications have not been received from Huila and Mossamedes, but it is known from private sources that these districts were also invaded.

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On 5 September 1933 a very large swarm, the passage of which lasted an hour and a half, passed over the town of Malange flying from E. to W.

A red swarm coming from the S. E. passed over Vila Gangamba, civil circumscription of Luchazes, flying N. W.

On the 10th a very large swarm, the passage of which lasted 2 hours, passed over the town of Malange flying from W. to E.

On the 11th a very large swarm, the passage of which lasted 4 hours, passed over the circumscription of Gambo Camana, district of Malanga, flying towards the circumscription of Duque de Bragança.

On the 13th a swarm covering an area of 60 square km passed over the civil post of Quipeio, civil circumscription of Huambo, flying from E. to W.

On the 14th a very large swarm covering an area of about 50 square km passed Lepi and caused serious damage to the crops of the district.

A very large swarm passed the farm of Gateia, civil circumscription of Silva Porto, causing heavy losses.

On the 20th a swarm passed Lepi and destroyed a few crops. Large swarms passed various places in the circumscription of Bailundo, causing serious losses of crops.

On the 21st very large swarms settled on the cultivated land of Vila Junqueiro, circumscription of Silva Porto, destroying all the crops of the district.

On the 24th a large swarm coming from the N. passed over Vila Henrique do Carvalho flying S.

On the 25th a very large swarm coming from the N. passed over the civil post of Gamba, civil circumscription of Andulo, flying S.

On the 29th a red swarm coming from the S. passed over Vila Cangamba, civil circumscription of Luchazes, flying N.

Official information has not been received from the districts of Huila and Mossamedes, but it is known that the locust invasions in these districts are becoming more serious.

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On 2 October 1933 large swarms passed over the civil circumscription of Pombo, causing serious losses of the native crops.

On the 4th a swarm passed over the civil post of Sambo, civil circumscription of Huambo, flying from W. to E.

On the 5th very large swarms passed over Lepi.

On the 8th a very large red swarm, about 20 km in length, passed Vila Serpa Pinto, civil circumscription of Menongue.

On the 12th an ash coloured swarm coming from the N. passed over Vila Cangamba (headquarters of the civil circumscription of Luchazes) flying W.

On the 15th an ash coloured swarm of about 10 square km in extent, coming from the W., passed over Vila Cangamba flying E.

On the 20th and 23rd swarms coming from the W. passed over the civil post of Sambo, civil circumscription of Huambo, flying E.

On the 24th and 29th two red swarms coming from the N. passed over Vila Serpa Pinto flying S.

Information of unknown date.

A large swarm settled to the E. of the Canguri farm (left bank of the river Cuige, district of Malanga) and laid eggs.

Another swarm invaded the region between Cacoliquesse and Dala-Quinguangua, district of Malanga, and laid eggs.

Two swarms settled in the region of Gambaxi and laid eggs.

Official data are not available regarding the other districts.

Eritrea: Locusts (1).

On 7 January 1934 a dense swarm of unknown colour coming from the Anglo-Egyptian Sudan passed over Gulsa flying towards Tessenei.

The Commercial Agent of Gondar reported that in the second decade of January 1934 dense bands coming from the west were noted near Gondar flying towards the upland plateaux of Uagherà and Belesa, Ethiopia.

Southern Rhodesia: Locust Invasion, 1932-1934 (2).

Monthly Report No. 13, December, 1933.

Red Locust (*Nomadacris septemfasciata*).

Egg-laying continued through the month, resulting in the presence of egg deposits in all districts in the Colony. In some parts egg deposits are exceedingly extensive.

The first hatchings occurred on about 10th December, indicating that egg-laying took place on about 10th November, that is, at least eleven days before the date stated in my November report. The incubation period varied somewhat, but in most cases recorded, the period has been 30 to 32 days. During last season the incubation period was considerably longer owing to the cool wet weather experienced.

Towards the end of the month, hatchings became more general, twenty of the districts reporting hoppers. These hatchings were more or less confined to the lower parts of the Colony. It is expected that the majority of hatchings will occur during the first half of January. In general, the hopper outbreak may be regarded as being five weeks earlier than during last season.

Most of the flying swarms died off during the month, a few only being reported towards the end.

Flying swarms caused considerable damage to a number of maize crops.

Enemies.

Owing to the fact that eggs and hoppers attracted the greater public attention, few adults were sent to headquarters during the month. Thus no attempt can be made to appraise the value of the Tachinid reported in November as parasitising adults.

Maggots of the fly *Stomatorrhina lunata* have been found destroying locust eggs in various, widespread localities, but no phenomenal measure of control appears to have occurred. Yellow Coleopterous grubs have been found feeding on eggs

(1) Communication from the official correspondent of the Institute, Dr. Rolando Guidotti, Chief of the Agricultural Office of Eritrea, transmitted by the Government of the Colony.

(2) Communication from the official correspondent of the Institute, Mr. Rupert W. Jack, F. E. S., Chief Entomologist, Department of Agriculture, Salisbury, Southern Rhodesia.

and an attempt is being made to rear the adult beetle for purposes of identification.

A small outbreak of hoppers was reported to have been controlled completely by black storks (*Abdimia abdimii*) in one district.

Campaign against Hoppers.

A campaign against hoppers was started in some districts in the latter part of the month, but the general campaign will commence in January.

Tropical Migratory Locust (*Locusta migratoria migratorioides*).

Only two specimens of hoppers of this species have been included with specimens of the Red Locust received at headquarters. Both species were in the first stage on receipt.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Western Australia. — The Lieutenant-Governor and Administrator amended the Regulations made under the Plant Diseases Act, 1914 and published in the *Government Gazette* on 16 September, 1921, by inserting after Regulation 48 A a new Regulation as follows :—

48 B. No person shall sell, supply, distribute, deliver, or dispose of any field peas (whether produced within or imported into Western Australia) to any other person unless and until such field peas have been fumigated with carbon bi-sulphide in such manner as effectively to render the same free from the disease of Pea Weevil (*Bruchus pisorum*). (*Government Gazette of Western Australia*, Perth, April 28, 1933, No. 20, p. 627).

*** On 18 October, 1933 the Minister of Agriculture announced that Cape Tulip (*Homeria collina*) has been declared a noxious weed within the boundaries of the Wagin Road Board District. (*Ibid.*, October 30, 1933, No. 50, p. 1621).

*** On the same date the Minister of Agriculture announced that the Lieutenant-Governor in Executive Council approved the By-law made and passed by the Lake Grace Road Board on 16 September, 1933, in relation to the prevention of the spread of the noxious weed known as Wild Turnip (*Brassica tournefortii*), in the district of the said Board. (*Ibid.*, p. 1622).

*** On 3 November, 1933 the Director of Agriculture announced that Cape Tulip (*H. collina*) and Wild Radish (*Raphanus raphanistrum*) have been declared noxious weeds within the boundaries of the Murray Road Board and Dowerin Road Board Districts respectively. (*Ibid.*, November 10, 1933, No. 53, p. 1754).

Italy. — By Ministerial Decree of 20 December 1933 the 'Insetticida Monital' has been added to the schedule of the tobacco derivatives and its sale price fixed.

By the same Decree the sale of sulphate of nicotine at a volumetric concentration of 25 %, in litre tins, has been authorised and its price fixed. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 2 marzo 1934, anno 75°, n. 52, p. 1140).

*** By Law No. 103 of 15 January 1934 the Royal Decree Law No. 1372 of 28 September 1933 [see this *Bulletin*, 1933, No. 11, p. 253] authorising the Ministry of Agriculture and Forests to contribute to the costs of the control of citrus scale insects, has been made Law. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 9 febbraio 1934, anno 75°, n. 33, p. 651).

Madagascar and Dependencies. — By Decree of the Governor General, dated 14 December 1933, the Comoro Islands have been declared infected with sugarcane mosaic. The regulations of Article 4 of the Decree of 24 June 1903 relating to the measures to be taken in case of infectious disease of crop plants in Madagascar and its Dependencies, are therefore made applicable to this administrative district.

Any exportation of plants, cuttings and seed of sugar cane from the Comoro Islands to other parts of the territory of Madagascar and its Dependencies is prohibited. (*Journal Officiel de Madagascar et Dépendances*, Tananarive, 6 janvier 1934, 50e année, N. S., nº 2490, p. 9-10).

Mexico. — By 'Acuerdo' of 12 September 1933 the rules are established relating to the inspection, verification and shipment of fruits having been grown in or coming from the various Municipalities of the State of Veracruz infested with *Anastrepha* spp. (*Diario Oficial*, México, 8 de noviembre de 1933, tomo LXXXI, núm. 7, pág. 117).

New Zealand. — By special order made by the Hawke's Bay County Council on 9 October, 1933 and published by the Minister of Agriculture on 21 October, 1933 Star thistle [*Centaurea calcitrapa*] has been declared a noxious weed in the said County. (*The New Zealand Gazette*, Wellington, October 26, 1933, No. 73, p. 2586).

*** By special order made by the Manawatu County Council on 10 October, 1933, and published by the Minister of Agriculture on 21 October, 1933, Prickly pear (*Opuntia* spp.) and Fennel (*Foeniculum vulgare*) have been declared noxious weeds, in the said County. (*Ibid.*).

*** By special order made by the Waitomo County Council on 8 December, 1933 and published by the Minister of Agriculture on 13 December, 1933, Hemlock (*Conium maculatum*) has been declared a noxious weed within the said County. (*The New Zealand Gazette*, Wellington, December 21, 1933, No. 87, p. 3421).

Tunis. — By Decree, dated 26 December 1933, of the Director General of Agriculture, Commerce and Land Settlement, the measures prescribed by the Decree of 26 August 1932 [see this *Bulletin*, 1933, No. 1, p. 14] to prevent the introduction into the Regency of the San José scale (*Aspidiotus perniciosus*) are made applicable to consignments coming from Spain and Rumania. (*Journal Officiel Tunisien*, Tunis, 5 janvier 1934, 52e année, nº 2, p. 27).

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The well produced volume is the work mainly of the Honorary Secretary, Dr. Neave, with the assistance of the Society's Registrar, Mr. Griffin. The President, Dr. Poulton, and the Honorary Treasurer, Mr. Hemming, have also taken part, the former writing the Introduction and the latter dealing with the finances of the Society.

The constitution and the Statutes of the Society are given.

The other chapters describe the development of the Society from its foundation (1745-1833) through its successive stages of progress (1834-1933) and give a clear idea of the collections, the library and the publications of the Society.

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NOTES

Sanitary Protection of the Olive Tree at the XIth International Olive Growers' Congress, Lisbon, 1933. — This Congress recommended the carrying out in the different ecological zones of the olive growing countries of comparative studies relating, *inter alia*, to all the diseases, parasitic and non-parasitic, of the olive tree, on a uniform plan and after full discussion between the specialised experts of the different olive growing countries, not only in regard to the methods to be followed in the research, but also in order to ensure the continuance of the investigation on the same lines during a sufficient number of years to allow conclusive results to be reached which will be of value to all the countries concerned.

In addition the Congress recommended that the International Federation of the National Societies of Olive-Growers should be invited to take steps to bring about :—

(1) that in each country a list be prepared of the common names of the insects attacking the olive tree, and that such list be submitted to the next Congress ;

(2) that, in all the typical ecological regions of the Mediterranean basin, studies and experiments be made, with scientific and practical aims, of the insects of the olive tree following as far as possible a common scheme with regard to the ecological data ;

(3) that the results obtained from these researches in the different countries be communicated at least on the occasion of each International Congress ;

(4) that, the urgent need for the solution of the problem of the olive fly (*Dacus oleae*) being recognised in all countries, the execution of the programme of a natural control by means of exotic parasites of the fly be begun, and that experiments in artificial control be also carried out with all possible scientific accuracy, under the direction of competent experts, who should, every year, make known the methods employed and communicate the results obtained.

Prof. ALESSANDRO BRIZI, *Segretario generale dell'Istituto, Direttore responsabile.*